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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,113	07/12/2004	Stewart Nathan Ridgley Swatton	04-533	5615
20306 7590 10/15/2007 MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP 300 S. WACKER DRIVE 32ND FLOOR CHICAGO, IL 60606			EXAMINER RUSH, ERIC	
			ART UNIT 2624	PAPER NUMBER
			MAIL DATE 10/15/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/501,113	Applicant(s) SWATTON, STEWART NATHAN RIDGLEY	
	Examiner Eric Rush	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3,6,8 and 9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,6,8 and 9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The rejection of claims 4 and 5 under 35 U.S.C. 112 second paragraph are withdrawn in view of their cancellation.

***Claim Rejections - 35 USC § 102***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. The rejection to claim 7 under 35 U.S.C. 102(b) is withdrawn in view of the cancellation

***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 1, 3, 6, and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong U.S. Patent No. 5,822,445 in view of Johnson U.S. Patent No. 6,444,969.

- With regards to claims 1 and 6, Wong teaches a direct optical biometric sensor comprising detecting means for detecting radiation (**Wong, Column 3 Lines 45 – 49**) and radiation directing means for directing radiation from a point of contact of an individual with the radiation directing

means towards the detecting means in response to contact of the individual with the radiation directing means at the point of contact (**Wong, Column 3 Lines 33 – 49**), wherein the radiation directing means comprises a planar slab waveguide having a core layer with a region which is at least partly exposed and means for introducing radiation into the core layer such that radiation propagates throughout the exposed region thereof (**Wong, Column 3 Lines 18 – 40**). Wong, however, fails to teach the sensor further comprising an interference filter disposed between the planar slab waveguide and the detecting means. Johnson teaches placement of an interference filter between the waveguide and the detecting means. (**Johnson, Fig. 1 Element 20, Column 4 Lines 24 – 30**) It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Wong to include the teachings of Johnson. This modification would have been prompted to detect only the emitted frequency of radiation dispersed by the LEDs. The placement of this filter would help prevent artifacts that could be introduced from erroneous radiation.

- With regards to claim 3, Wong in view of Johnson teach a sensor according to claim 1. Wong teaches wherein the means for introducing radiation into the core layer of the planar slab waveguide comprises one

or more diodes lasers or light-emitting diodes. **(Wong, Column 3 Lines 1 - 8)**

- With regards to claim 8, Wong teaches an optical biometric sensor comprising: a radiation detector; **(Wong, Column 3 Lines 35 – 49)** a radiation director capable of directing radiation from a point of contact of an individual with the radiation director towards the radiation detector in response to contact of the individual with the radiation director at the point of contact **(Wong Column 3, Lines 33 – 49)**, the radiation director further comprising a planar slab waveguide having a core layer with a region which is at least partly exposed and a radiation source for introducing radiation into the core layer such that radiation propagates throughout the exposed region thereof. **(Wong, Column 3 Lines 18 – 40)** However **Wong fails to teach** wherein the sensor further comprises an interference filter disposed between the planar slab waveguide and the radiation detector. Johnson teaches the sensor further comprising an interference filter disposed between the planar slab waveguide and the radiation detector. **(Johnson, Fig. 1 Element 20, Column 4 Lines 24 – 30)** It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Wong to include the teachings of Johnson. This modification would have been prompted to detect only the emitted frequency of radiation dispersed by the LEDs. The placement of

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this filter would help prevent artifacts that could be introduced from erroneous radiation.

- With regards to claim 9, Wong in view of Johnson teach the optical biometric sensor of claim 8. Wong teaches wherein the radiation source is selected from one or more diode lasers or one or more light emitting diodes. **(Wong, Column 3 Lines 1 - 8)**

### ***Response to Arguments***

6. Applicant's arguments filed 10 August 2007 have been fully considered but they are not persuasive. With regards to claims 1 and 8, the Applicant's Representative argues that Johnson fails to teach an interference filter as claimed. The Examiner disagrees and asserts that Johnson does teach an interference filter in Column 4 Lines 24 – 30. Johnson states that the sensor may have a filter so as to prevent *interference* from radiation from other sources. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., an interference filter that has a multi-layer construction and will reject light incident on the filter at a small angle away from normal incidence even if light of the same wavelength is passed at normal incidence, allowing closely spaced features to be resolved) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the

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specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

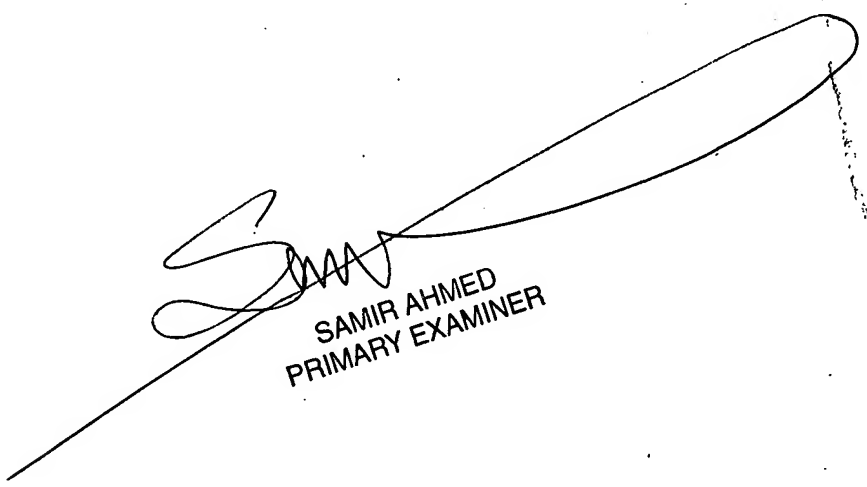
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Rush whose telephone number is (571) 270-3017. The examiner can normally be reached on 7:30AM - 5:00PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samir Ahmed can be reached on (571) 272-7413. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ER



SAMIR AHMED  
PRIMARY EXAMINER